

Asbestos Program

Lesson Guide

#16



OBJECTIVES: *Upon completion of this topic you will be able to:*

- Describe the Navy's Asbestos Program applicability.
- Describe the general workplace control practice for asbestos.
- Identify the elements of the Asbestos Management Program.
- Describe the activities responsibilities for the Asbestos Management Program.

Applicability

- Afloat Commands
 - 29 CFR 1915.1001
 - Asbestos in Shipyards
 - OPNAVINST 5100.19(series)
 - Chapter B-1
- Ashore Commands
 - 29 CFR 1926.1101
 - Asbestos Construction Standard
 - OPNAVINST 5100.23(series)
 - Chapter 17

Background

- The word “Asbestos” is derived from a Greek adjective meaning inextinguishable
- Asbestos is a naturally occurring mineral
 - Once extracted from the earth, asbestos containing rocks are crushed, milled and graded, this produces long, thread-like fibers

Uses of Asbestos

- Because of its unique properties:
 - fire resistance
 - high tensile strength
 - poor heat and electrical conductivity
 - impervious to chemical attacks
- Most common use
 - fireproofing material

Health Effects

- Asbestosis
 - a disease characterized by fibrotic scarring of the lung
 - latency period of 10-20 years
- Lung Cancer
 - there are many causes of lung cancer, of which asbestos is only one
 - cigarette smoking is more than 50 times more likely to contact lung cancer
 - latency period is typically 20 years

Health Effects

- Mesothelioma
 - greatest concern and rarest
 - cancer of the chest cavity lining
 - spread rapidly and is always fatal
 - latency period 20-40 years

Exposure Limits

- Permissible Exposure Limit (PEL)
 - OSHA limit for asbestos
 - 0.1 f/cc
- Excursion Limit (EL)
 - OSHA limit for asbestos
 - 1.0 f/cc

Control of Asbestos

- Identification of asbestos
- Awareness of the health hazards
- Using good work practices
 - Working asbestos wet
 - Working under negative pressure
 - Working clean

Control of Asbestos

- There are four Classes of asbestos work
 - Class I
 - removal of thermal system insulation and surfacing asbestos containing materials
 - Class II
 - removal of asbestos containing materials which are neither thermal system insulation or surfacing

Control of Asbestos

- There are four Classes of asbestos work (cont)
 - Class III
 - repair and maintenance operations where asbestos containing materials might be disturbed
 - Class IV
 - maintenance and custodial activities where contact is expected but no disturbance of asbestos containing material

Respiratory Protection

- Respiratory Protection Program
 - Any employee who requires or permits employees to wear a respirator must have a written program
 - Required by OSHA:
 - 29 CFR 1910.1001 (General Industry)
 - 29 CFR 1910.134 (Respiratory Protection)
 - 29 CFR 1915.1001 (Shipyards)
 - 29 CFR 1926.1101 (Construction)

Respiratory Protection

- Categories of Respirators
 - Air-purifying
 - Supplied-air
 - Combination
- Only use NIOSH approved
- Medical Approval
- Training
- Fit testing

Respiratory Protection

- Seal Checks
 - Before entering hazardous atmosphere
 - Seal checks
 - Negative pressure seal check
 - positive pressure seal check

Asbestos Medical Surveillance Program (AMSP)

- Who needs medical surveillance
 - employees engaged in Class I, II, and III work for thirty or more days per year; if they are exposed at or above the PEL or EL; or, if they wear negative-pressure respirators
- Examinations
 - Pre-Placement Exams
 - Annual Examinations
 - Termination of Employment Examination

Asbestos Sampling

- Types of samples
 - Bulk
 - Purpose is for identification
 - Method of analysis is Phase Light Microscopy
 - Criteria to identify Type and amount of asbestos or %

Asbestos Sampling

- Types of samples (cont)
 - Area/Personal
 - Purpose is for establishing fiber levels in air so personnel aren't exposed above PEL or EL
 - Method of analysis is Phase Contrast Microscopy
 - Criteria to identify amount of fibers or %

Asbestos Samples

- Final clearance samples
 - to determine the cleanliness of abatement project so personnel can come back into area safely
 - Non-school house (OSHA) projects final clearance
 - Method is Phase Contrast Microscopy
 - Criteria is <0.01 F/cc
 - School house (EPA) projects final clearance
 - Method is Transmission Electron Microscopy
 - Criteria is <70 s/mm²

Disposal Procedures

- Proper packaging, sealing, labeling
 - Package
 - double 6 mil plastic bag
 - Sealing
 - evacuate air in bag twist tape loop and tape to form a handle (goose neck or J seal)
 - double bag
 - Label
 - check with local disposal authority

Training

- Afloat Commands
 - Follow requirements in
 - OPNAVINST 5100.19(series)
 - Chapter B-1
- Ashore Commands
 - Follow requirements in
 - OPNAVINST 5100.23(series)
 - Chapter 17

OPNAV PROVIDES

- guidance for the control and elimination of exposure to Navy personnel
- states the Navy policy - to eliminate asbestos hazards

Asbestos Management Program Ashore

- survey and material evaluation
- Operations & Maintenance (O&M) program
- design and abatement

Asbestos Management Program Ashore

- Asbestos Program Manager
 - must be appointed in writing
 - will implement the Asbestos Management Program

Industrial Hygiene Surveillance

- Exposure Monitoring Plan

Work Performed by Private Contractors

- contractors must comply with OSHA and EPA

Responsibilities

- Echelon 2 - ensure that asbestos containing materials are not procured
- BUMED - manage the AMSP
- NAVFACENGCOM - provide oversight for Asbestos Management Ashore

Responsibilities

- Commanding Officers
 - apply control measures
 - monitor procedures
 - maintain O&M plans
(Operations and Maintenance)

Review and Summary